Amendments to Specification

Please amend the named inventors of the present application by deleting the name John Dennis Underwood.

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Please amend the text at page 1, lines 8 to 14, line as follows:

The present invention relates to a computationally efficient method of finding patterns in sequences of symbols written in a ~~an~~ particular alphabet, to a computer readable medium having instructions for controlling a computer system to perform the method, and to a computer readable medium containing a data structure used in the practice of the method.

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Please amend the text at page 2, line 28 through page 3, line 12 as follows:

In accordance with the method, for each sequence, a master offset table is formed. The master offset table groups for each symbol the position (position index) in the sequence occupied by each occurrence of that symbol. The difference in position between each occurrence of a symbol in one of the sequences and each occurrence of that same symbol in the other sequence is determined. A Pattern Map, typically ~~is~~ in the form of a table, is formed. Each row in the table represents a single value of "difference in position". For each given value of a difference in position, the table lists the position in the first sequence of each symbol in the first sequence that appears in the second sequence with that difference in position. The collection of the symbols tabulated for each value of difference in position thereby defines a parent pattern in the first sequence that is repeated in the second sequence.

The Pattern Map may also list ~~lists~~ the number of symbols tabulated for each value of a difference in position. Thus, those parent patterns in the Pattern Map that have a number of symbols greater than a predetermined threshold may be readily identified from the number of symbols tabulation.

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Please amend the text at page 4, lines 25-26 as follows:

Figures 2A and 2B show ~~Figure 2 shows~~ the Pattern Map of the first example;

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Please amend the text at page 5, lines 1-3 as follows:

Figures 7A and 7B illustrate ~~Figure 7 illustrates~~ an example of the formation of "tuples" in accordance with the method of the present invention;

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Please amend the text at page 5, lines 11-12 as follows:

Figures 11A and 11B show ~~Figure 11 shows~~ a linked data structure formed in accordance with the method of the present invention

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Please amend the text at page 9, lines 8-14 as follows:

Thus, from the S_1 MOT table it may be observed that the symbol "F" occurs at the sixth ~~seventh~~ , twenty-eighth and forty-second position indices in the first sequence. Similarly, from the S_2 MOT table it may be observed that the symbol "F" occurs at the nineteenth and forty-seventh position indices in the second sequence.

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Please amend the text at page 30, line 25 through page 31, line 2 as follows:

Each k-tuple has an associated tuple-table. The tuple-table represents, in index form, all of the patterns contained in the tuple. The tuple-table may be represented as an array of tuple-table entries. These are the elementary data structures of the tuple-table, and comprise a symbol and an array of difference-in-position values. By convention, difference-in-position values are taken with respect to the indices of the first (leftmost) sequence in the tuple. A tuple-table row entry is written $[S_{lx}: l_x, m_y, n_z, \ldots]$, where S_{lx} is the symbol corresponding to the position index x in the l^{th} sequence, and m_y and n_z are the difference-in-position values to all of the symbols in sequences m and n. The first index column in a tuple-table will be called the primary column for reasons that will become apparent.

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Please amend the text at page 33, lines 30-38 as follows:

Patterns from a k-tuple table that are common to the k-tuple table and a (k+1)-tuple table may be deleted. This is accomplished by first deleting the suffix column corresponding to a sequence not shared between the two tuple-tables, thereby defining a modified table. Then rows from the k-tuple table whose suffix columns contain identical sets of difference-in-position [[***]] values to a row of the modified table may be deleted.